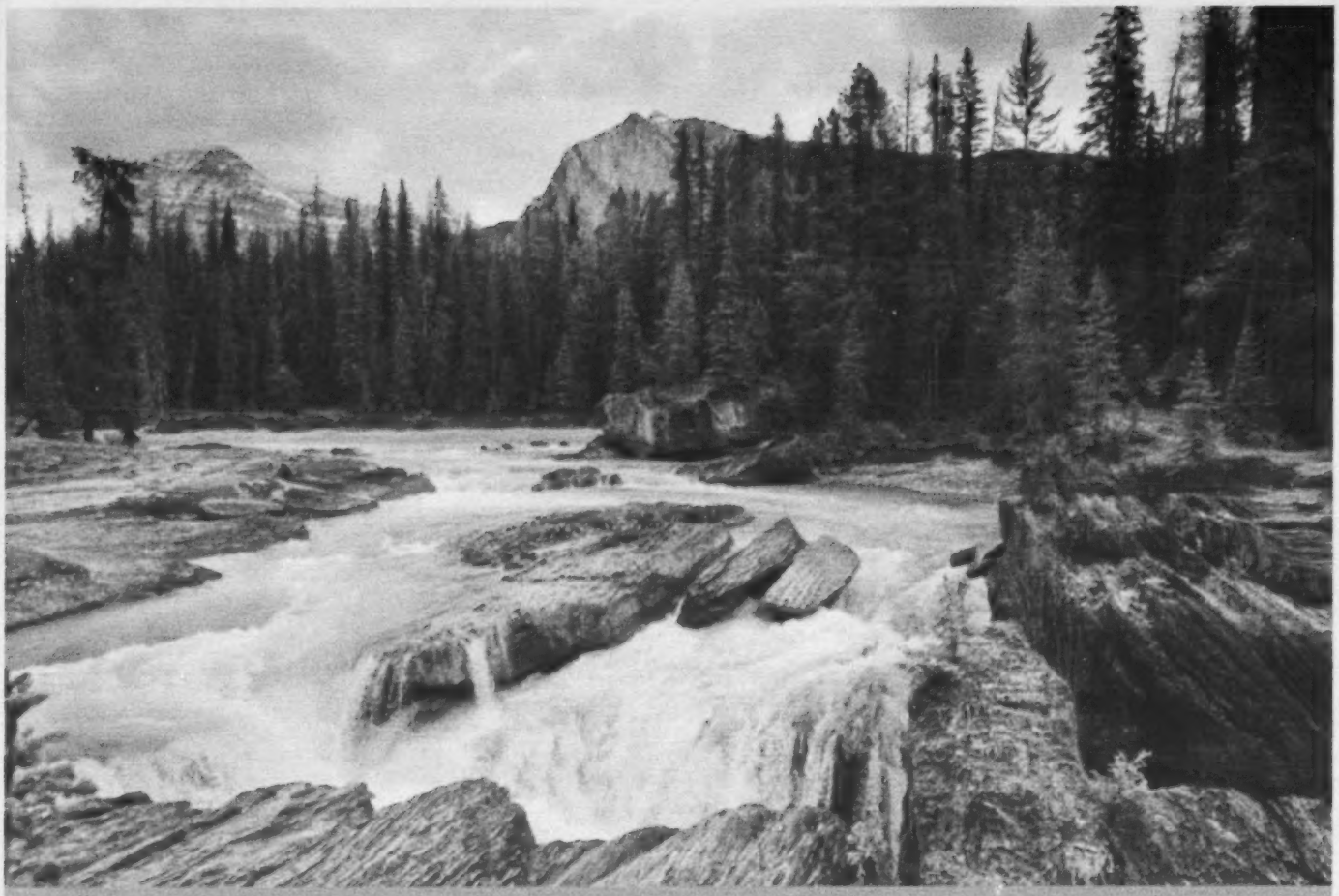

FISH AND WILDLIFE COMPENSATION PROGRAM

PEACE REGION ANNUAL REPORT 2009-2010

The FWCP is a partnership of:

BC hydro
FOR GENERATIONS

BRITISH COLUMBIA

Canada
Fisheries and Oceans Canada
Pêches et Océans Canada

FISH AND WILDLIFE COMPENSATION PROGRAM

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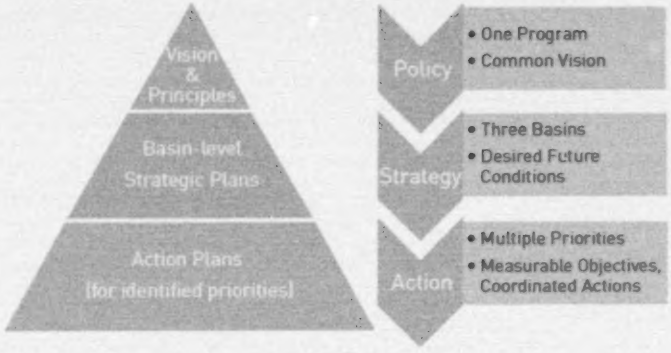
PROGRAM OVERVIEW

MISSION:

The Fish and Wildlife Compensation Program (FWCP)compensates for the impacts to fish, wildlife and their supporting habitats affected by BC Hydro owned and operated generation facilities.

FWCP STRATEGIC FRAMEWORK



PARTNERS:

The program is a partnership between BC Hydro (BCH), the Ministry of Environment (MOE), Fisheries and Oceans Canada (DFO), First Nations and public stakeholders. The goal is to have engagement and participation of all the partners in priority setting, approval, review and delivery of the program.

MINISTRY OF ENVIRONMENT

Within MOE, The Environmental Stewardship Division promotes provincial goals of conservation and sustainable use for fish, wildlife and ecological values. With respect to fish, the aim of the Freshwater Fisheries Program Plan is "A naturally rich and sustainable freshwater fish resource supporting diverse uses for all British Columbians". Similarly, the Wildlife Program Plan aims to provide "Naturally diverse and sustainable wildlife supporting varied uses for current and future generations". The Conservation Framework prioritises species and ecosystems for conservation and provides science based tools and actions. Some species and ecosystems are legally protected and have Recovery strategies and management plans associated with them. Another important element of the MOE is to minimize or mitigate the negative impacts associated with wildlife and human interaction. This may include impacts associated with wild ungulates feeding on agricultural areas, predation of livestock, and human-bear interaction. In some cases inundation and the ensuing loss of foraging land or movement corridors has resulted in alterations in wildlife patterns.

FISHERIES AND OCEANS CANADA

Under the Fisheries Act, DFO is the primary agency responsible for conserving and managing Canada's fisheries, including pacific salmon. It does so through management and monitoring of fisheries, protection of fish habitat, and pollution prevention. The Policy for the Management of Fish Habitat (1986) has an overall objective of 'net gain' of fish habitat and helps guide the implementation of fish habitat protection through collaboration with relevant

The FWCP in the Peace/Willliston region was established to enhance and protect fish and wildlife resources affected by the construction of the W.A.C. Bennett and Peace Canyon dams on the Peace River, and the subsequent creation of the Williston and Dinosaur Reservoirs.

provincial agencies. The Species at Risk Act mandates protection of geographically and genetically distinct populations. The principle goal of the Wild Salmon Policy Canada's Policy for Conservation of Wild Pacific Salmon, 2005 and is "to restore and maintain healthy and diverse salmon populations and their habitats for the benefit and enjoyment of the people of Canada in perpetuity". This achieved through safeguarding genetic diversity, maintaining ecosystem integrity and managing for sustainable fisheries.

BC HYDRO

As a Crown Corporation, BC Hydro is committed to producing, acquiring and delivering electricity in an environmentally, socially and financially responsible manner through managing impacts from its operations, and weighing environmental values with social and economic interests. Where negative impacts cannot be avoided, it will work to mitigate or offset them, enhance affected habitat and sustain resources over the long term. As part of its water licenses to operate its facilities, BC Hydro is required to undertake compensation programs in different regions of the province. Through the compensation program, it is committed to developing positive projects, such as investments to improve fish stocks, and building relationships to encourage stakeholder and aboriginal community engagement, particularly where their input can contribute to better decisions.

PROGRAM DELIVERY

The overall vision and common principles drive the FWCP program and projects, and provide a foundation for determining strategic priorities at the watershed level (Watershed Plans) which are developed into Action Plans. The bulk of projects undertaken by the FWCP will be delivered under Action Plans that lay out a suite of key actions to achieve specific goals associated with species and ecosystems. Actions could include research, implementation activities, monitoring and evaluation activities, and communication mechanisms. Applicants are encouraged to use the Watershed Plans and Action Plans to develop projects that meet the overall objectives of the FWCP program. Technical Committees, staff and the management board will reference the plans to ensure that the highest priority projects are invested in.

VISION:

Thriving fish and wildlife populations in watersheds that are functioning and sustainable.

PROGRAM OVERVIEW

PRINCIPLES:

Approach—The program has a forward-looking, ecosystem-based approach that defines the desired outcomes and takes actions to restore, enhance and conserve priority species and their habitats.

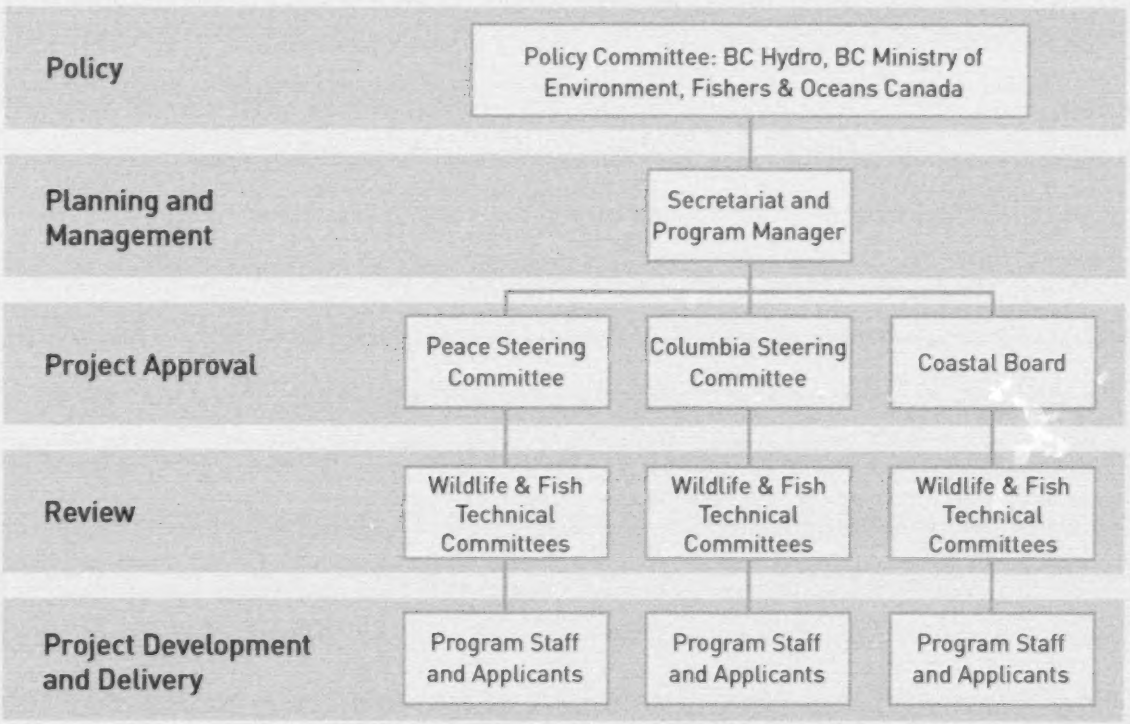
Decision Making—The program efficiently uses its resources and works with its partners to make informed and consensus-built decisions that enable the delivery of effective, meaningful and measurable projects that are supported by the impacted communities.

Geographic Scope—Within the watersheds, basins and ranges of the populations of species affected by generation facilities owned and operated by BC Hydro.

Objectives—The program defines and delivers on compensation objectives that reflect the partnership's collective goals and align with provincial and federal fish and wildlife conservation and management objectives in the areas where we work.

Delivery —The program strives to be a high performing organization with skilled and motivated staff and partners delivering efficient, effective and accountable projects.

PROGRAM GOVERNANCE:



ADMINISTRATION

PROGRAM STAFF AND COMMITTEE MEMBERSHIP

There were several membership changes this year to the program's committees and management. Marc Imus completed his one-year temporary secondment as Program Manager in September 2009 and moved to a new government agency position. A new Program Manager, Bob Coyle, was seconded from MOE's Conservation Office Service for a one-year term starting in February 2010. Andrew MacDonald remained as Coordinating Manager for the overall FWCP.

Membership on the Policy Committee (PC) changed when Edie Thome (BCH) joined the committee in July 2009 (replacing David Facey, who left in March), and Ralph Archibald (MOE) replaced Al Martin in October 2009. Membership on the Steering Committee (SC) changed with Ted Zimmerman (MOE, Prince George) replacing Don Cadden in February 2010. Kevin Conlin (BCH) assumed the role of Chair upon Don's departure.

Membership on the Wildlife Technical Committee (WTC) changed with Pete Scales (BCH, Hudson's Hope) being replaced by Kim Hawkins in October 2009, while Conrad Thiessen (MOE, Fort St. John) assumed the Chair position. The Fish Technical Committee (FTC) membership changed substantially: David Wilson (BCH, Burnaby) was replaced by Brent Mossup in October 2009, Brendan Anderson (MOE, Fort St. John) joined the program in January 2010, and Pete Scales (BCH, Hudson's Hope) left the program in September 2009. No replacement was determined for the latter position, resulting in the FTC having 1 BCH and 2 MOE members. Ray Pillipow (MOE, Prince George) continued serving as Chair for his 3rd consecutive year.

Program staff remained the same since 1994: 3 fish biologists (Brian Blackman, Arne Langston, Randy Zemlak) and 2 wildlife biologists (Mari Wood, Fraser Corbould). Brian Blackman worked part-time during the year due to health issues.

FINANCIAL TRACKING

Financial accounting conducted by program staff included completion of 2008/09 fiscal year-end accounting, expenditure summaries for the 2008/09 Annual Report, development of new fiscal work orders and financial tracking systems for 2009/10, monthly tracking of program expenditures, and expenditure summaries for program Quarterly Reports.

PLANNING, SAFETY AND TRAINING

A framework to transition BC Hydro's three regional fish and wildlife compensation and restoration programs (Peace/Williston, Columbia Basin, and Bridge Coastal) into a single program (FWCP) with three regional chapters was drafted by the central FWCP Coordinating Manager. As a result, Peace/Williston planning and community consultation activities were scaled back in fiscal 2009/10. Some preliminary activities were conducted for the development of program Basin and Action Plans, including development of a prioritization matrix for species and ecosystems, and a Basin Planning session (provided by Compass Resource Management) at the March SC meeting. Initiation of the full Basin and Action planning process was deferred pending completion of the Memorandum of Understanding between First Nations and the FWCP-PW.

The sub-committee formed the previous fiscal between First Nations and SC members held meetings to further develop a new MoU to guide future involvement of First Nations in the FWCP-PW. The SC held program meetings in Prince George in October 2009 and March 2010 which were attended by SC and Technical Committee (TC) members, program staff, and representatives from a number of First Nations in the watershed. TC meetings were held, and staff prepared annual budget packages and Powerpoint presentations for delivery at SC meetings.

Staff participated in monthly safety meetings, and completed internal BCH and project-specific safety training.

COMMUNITY CONSULTATION AND INFORMATION

COMMUNITY CONSULTATION

No formal FWCP-PW community consultation activities were undertaken this fiscal as activities were scaled back while an over-arching Communications Plan for the entire FWCP was being developed.

INFORMATION DISSEMINATION

Staff distributed Fish Identification pamphlets (prepared by the FWCP-PW) to high-use locations in Mackenzie, Hudson's Hope and Chetwynd. Staff also worked to complete Program signage scheduled for Dunlevy Creek, Neilson Lake, and Dinosaur Reservoir, but the signage was deferred pending completion of the new FWCP logo, mission, and vision statements. Dr. McPhail's CD-ROM containing valuable information about fish species in the program's watersheds was activated on the FWCP-PW website. Staff produced the 2008/09 Annual Report and 3 Quarterly Reports on 2009/10 activities. The Annual Report and project reports were posted to the FWCP-PW website (bchydro.com/pwcp). Comments, updates, and new report postings for the website were provided to BCH.

Staff delivered presentations on the fish and wildlife components of the FWCP-PW at a joint BCH business-unit meeting (FWCP-PW, Water License Requirements (WLR), and Site C). Project-specific presentations and/or posters were presented on the Fisher Habitat Use Project (5th International Martes Symposium in Seattle), Brassy Minnow Project (MOE provincial fisheries biologists meeting in Kelowna), and Parsnip Caribou Recovery Project (16th annual TWS conference in California, University of Northern British Columbia (UNBC) graduate sessions, Spruce City Wildlife Association in Prince George). MOE also presented interim results of the Parsnip Caribou Project to the McLeod Lake Indian Band.

Input to various planning processes and agencies regarding fish and wildlife management issues and research projects was provided by staff throughout the year, including input to several BCH business units (WLR, Site C, GMS dam, ESI etc.). The FWCP-PW and specific fish and wildlife projects were also discussed through informal meetings and talks with government agencies, industry representatives, club members, guide-outfitters, trappers, contractors, and the general

COMMUNITY CONSULTATION AND INFORMATION

DONATIONS/SPONSORSHIPS

Staff worked with the UNBC Awards Selection Committee to select Samuel Albers as the recipient of the 2009 "Peace/Williston Aquatic Research Award". His research is focused on aquatic nutrient cycling related to fish carcasses. Funds were also donated to the District of Mackenzie for their annual winter "Family Ice Fishing" event.

FISH EDUCATION PROJECTS

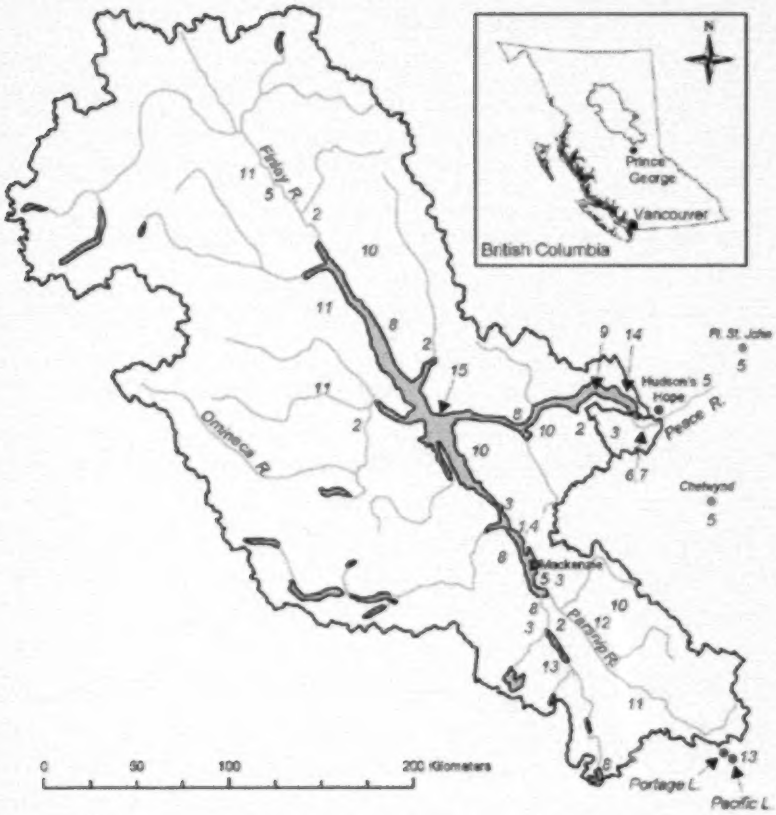
Fish staff coordinated and led the annual kokanee release and environmental awareness field days for seven schools (Mackenzie – 2, Chetwynd – 2, Hudson's Hope – 1, Fort St John – 2), and 2 First Nations communities (Moberly Lake and McLeod Lake). Television and newspaper coverage was received in Fort St. John. DFO provided an award and letter of appreciation/acknowledgement to a Fort St John student participating in the FWCP-PW's Kokanee Rearing-Environmental Awareness project. Fish staff also coordinated and participated in the annual Dina Creek Ecology Field day which was attended by 70 students and 16 parents. Volunteers from the McLeod Lake Indian Band, Mackenzie companies and Mackenzie Fish and Game Association also participated.

First Nations members participated in several projects this year including the kokanee release and environmental awareness sessions in Fort Ware and Halfway River, the Dina Creek Ecology Field day, the Dina Creek maintenance project, and kokanee spawner survey flight (Kwadacha members). Staff continued to seek opportunities to share/exchange/receive information with First Nations members.

The seventh in a series of annual lectures at UNBC sponsored by the FWCP-PW was held in March 2010, where Melanie Karjala spoke on the Aboriginal Forest Planning Process and George Desjarlais (West Moberly First Nations) spoke on First Nations perspectives and Traditional Ecological Knowledge (TEK). The lectures were preceded by a brief overview of the FWCP-PW, and were followed by a "meet and greet session" with FWCP-PW biologists at their display booth.

FISH PROJECTS—PEACE/WILLISTON REGION

2009/10 FISH PROJECT LOCATIONS



	Task#	Project	Location
1	09-01	Dina Creek Maintenance & Education	Parsnip
2	09-01	Water Temperature Monitoring	Watershed
3	09-01	Fish Stocking	Peace, Parsnip
5	09-B3	Education Programs (see CCI)	Watershed
6	09-02	Dinosaur Habitat Improvements	Peace
8	09-04	Brassy Minnow	Watershed
9	09-05	Peace Reach Arctic Grayling Use	Peace
10	09-09	Bull Trout Redd Counts	Watershed
11	09-10	Kokanee Index Surveys	Finlay, Parsnip
12	09-06	Parsnip Arctic Grayling Index	Parsnip
13	09-11	Kokanee Genetics	Parsnip
14	09-12	Gravel Hill Creek	Peace
15	09-13	Williston Reservoir Fish Populations	Reservoir

FISH PROJECTS

FISH PROJECT SUMMARIES

PROJECT OPERATIONS AND MAINTENANCE (#09-01)

Project Objectives: To provide for the long term maintenance and upkeep of ongoing projects. This year the project includes, Dina Creek, water temperature monitoring, fish stocking, small lake evaluations, report writing, and project evaluation.

2009/10 (Year 15 of ongoing):

- **Dina Creek**—maintenance on the spawning channel was completed with the assistance of members from the McLeod Lake Indian Band. Staff participated in meetings with Mackenzie Forest service, Road Licensee and Park Branch officials to develop a better long term solution to the problem of beaver dams blocking the culvert just upstream of the enhanced area. The blockage prevents fish passage, floods the road and results in damage to the enhanced spawning area.
- **Water Temperature Monitoring**—the stations were checked for accuracy, and data from previous years has been summarized.
- **Fish Stocking**—a total of 6,500 rainbow trout and 3,000 brook trout were released into 4 small lakes and requests for 2010 releases were submitted to the Freshwater Fisheries Society. This project addresses the Program Strategic Objective of providing additional recreational opportunities.
- **Small Lake Evaluations**—the project was deferred to 2010.
- **Report Writing**—Reports from previous years that were approved by the Technical Committee and posted on the website in 2009-10 include: 2006 43 Mile Pothole Lake Recreational Fishery Stock Assessment (report # 328), 2006 Lost Lake Recreational Fishery Stock Assessment (report # 329), 2007 Bruce Lake Recreational Fishery Stock Assessment (report # 330), 2007 Simpson Lake Recreational Fishery Stock Assessment (report # 331) Gething Creek Bull Trout Translocation Project (report # 333), Population structure and habitat used by Arctic grayling in tributaries of the Williston Reservoir using natural elemental signatures (report # 300) and Summary report of Arctic grayling management and Conservation 2009. A synopsis of the information available on Arctic grayling in the Omineca region of Northern British Columbia and identification of additional information needs. (report # 337). Also there are two reports awaiting actions by staff, two reports awaiting action from contractors, and 14 reports awaiting review or approval by the committees.
- **Project Evaluation**—project evaluations have been deferred awaiting the development of new evaluation criteria.

FISH PROJECTS

DINOSAUR RESERVOIR HABITAT IMPROVEMENTS (#09-02)

Project Objective: To improve shoreline rearing habitat for fish in Dinosaur Reservoir by the addition of cover in the form of woody structures.

2009/10 (Year 7 of 8): 2009 was the seventh year of habitat improvements through the addition of woody structures along the shoreline. The 2009 plans were to only do maintenance on existing structures and not add any new structures as the program is in a planning phase and the future direction of this project needs to be determined. However, no maintenance occurred this year due to a shortage of staff availability.

Shoreline areas where cover has been added in the form of cabled trees have approximately five times more fish than unenhanced areas.

DINOSAUR RESERVOIR FISH ASSESSMENT DESIGN (#09-03)

Project Objective: To evaluate the fish assessment projects being conducted on Dinosaur Reservoir to determine if the methods used are meeting the needs of the program.

2009/10 (Year 1 of 1): To evaluate both the sampling methods used to evaluate fish use of the enhanced habitats and the electrofishing index program. The index is intended to be a long term monitoring project to assess fish populations in Dinosaur Reservoir and if possible document population changes that may have resulted from actions undertaken by the program. The data and methodologies used were to be provided to outside and inside experts for analysis who would then provide recommendations on whether the projects were meeting the needs of the program or if modifications should be made. The data was summarised for analysis but no contract was tendered because of staff time shortages and because program needs may change depending on the outcome of the planning process.

BRASSY MINNOW DISTRIBUTION STUDY (#09-04)

Project Objective: To verify the presence of brassy minnow and collect biological data on this species in the southern portion of Williston watershed. This updated distribution information will then be available to ensure proper species review status with respect to COSEWIC and the Conservation Data Centre.

2009/10 (Year 4 of 5): In 2009, minnow trapping, electrofishing and gill netting was conducted along the entire Peace reach, in selected locations of the Parsnip and Finlay reaches, and the Crooked River watershed. Brassy minnow were captured in the Crooked River watershed, and within the drawdown zone at/or near the mouth of some Parsnip Reach tributaries indicating possible use of the reservoir. Results from these surveys have been forwarded to MoE's Conservation Framework department. Outside funding from the Conservation Framework group has been obtained which allowed us to collect additional data in 2009. This project meets our objective of conserving fish species and their habitat.

FISH PROJECTS

PEACE REACH GRAYLING GENETIC SAMPLES (#09-05)

Project Objective: To investigate anecdotal information that suggests there may be small numbers of grayling utilizing the Peace Reach.

2009/10 (Year 1 of 1): This project was not initiated because of staff time commitments. After the formation of the Reservoir grayling were the most abundant sport fish species in the Peace Reach streams, but they have absent from the Peace Reach since the late 1980's. Recently we have been receiving reports of grayling being captured at the stream mouths soon after ice off in the spring. This project would meet the objective of conserving species negatively impacted by the formation of the reservoir.

PARSNIP ARCTIC GRAYLING POPULATION INDEX (#09-06)

Project Objective: To monitor the Arctic grayling populations which use the Parsnip, Table and Anzac rivers in order to provide input into the future enhancement, management and protection decisions. Arctic grayling are a priority species for the Program because the formation of the reservoir may have negatively impacted both their distribution and abundance, which has in turn resulted in a significant loss of recreational opportunities.

One-year-old Arctic Grayling from the Parsnip River.

2009/10 (alternate years since 1998): In 2009 this project was cancelled because of staff medical issues. This project would meet the objective of conserving species negatively impacted by the formation of the reservoir.

SYNOPSIS OF THE PEACE\WILLISTON ARCTIC GRAYLING PROGRAM (#09-07)

Project Objective: To review, collate and analyse the past and current grayling projects and data to provide a synopsis of the Peace\Williston Arctic grayling program and to develop informed decisions around strategic implementation plans.

2009/10 (Year 2 of 3): This project has changed fairly dramatically from the original proposal as outlined in the 2008/09 budget document. We are now funding a graduate student from UNBC who has summarized the data collected from Williston Watershed, compared it with data collected elsewhere in BC and pointed out data gaps. Her thesis will focus on determining preferred water temperatures for grayling in Williston Watershed. Additional funding from National Sciences and Engineering Research Council of Canada has been obtained for this project. This project meets the objective of conserving species negatively impacted by the formation of the reservoir.

FISH PROJECTS

ARCTIC GRAYLING MANAGEMENT AND RECOVERY PLAN (#09-08)

Project Objective: To provide an acceptable framework for a "recovery " plan for arctic grayling in the watershed aimed at protecting and enhancing the remaining stocks and habitats and to conceivably reintroduce stocks back into areas where they have been extirpated.

2009/10 (Year 8 of ongoing): A draft management/recovery plan was developed but in the interim the Province has developed a new Species Management Plan format. So the plan is being adapted to this new format. A workshop was held in April 2010 to discuss the new draft plan. From this draft plan, the following five objectives describe the desired state of Arctic grayling in the province of BC:

1. Maintain the native distribution and genetic diversity of populations;
2. Maintain wild populations at abundance levels capable of providing sustainable societal benefits;
3. Maintain the capacity of natural habitat to meet abundance targets for populations;
4. Optimize sustainable recreational benefits; and
5. Maintain ecosystem structure and processes, within the framework of regional land and resource management plans.

This project meets the objective of conserving species negatively impacted by the formation of the reservoir.

BULL TROUT REDD COUNT INDEX (#09-09)

Project Objective: To monitor and compare bull trout redd counts at strategic index sites in order to determine population trends with the intent of enabling input into management, protection, and enhancement plans for Williston Reservoir bull trout.

2009/10 (Year 7 of ongoing): Staff constructed a helipad at Scott Creek with assistance of a professional faller hired from McLeod Lake Indian Band's Duz Co Logging Company. Bull trout redd counts were completed on Davis River, Misinchinka River, Point Creek, and Scott Creek. This project meets the Program Strategic Objective to evaluate the status of fish and their habitat. No trends are detectable at this early stage in the project, however, counts to date are as follows:

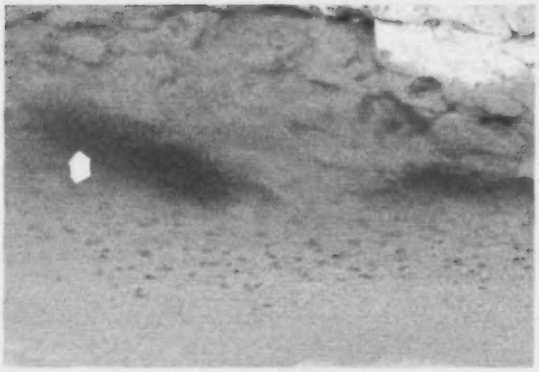
Number of bull trout redds observed by year and index site.

Year	Davis R	Misinchinka R	Point C	Scott C
2001	39			
2002				
2003	42			
2004	69			
2005	43			
2006	66	58	39	
2007	37	44	21	
2008	54	37	18	
2009	65	35	5	58

FISH PROJECTS

KOKANEE SPAWNER INDEX STEAM SURVEYS (#09-10)

Project Objective: To document kokanee spawner distribution, collect biological data, and monitor trends in the kokanee population by conducting aerial counts on selected index streams.

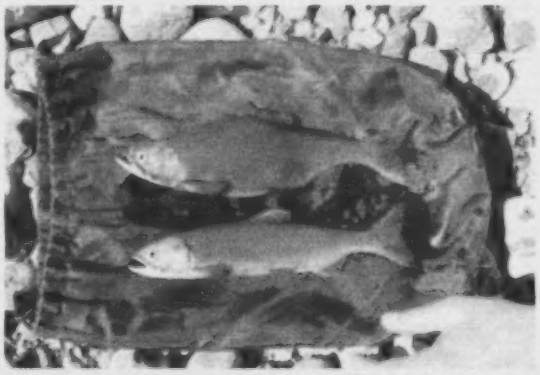


Kokanee spawners in the Osilinka River in 2008.

2009/10 (Year 3 of 5): The index streams (Hydro Creek, Germansen, Osilinka, 3 Finlay River tributaries, and 2 Ingenika River tributaries) were surveyed between 15-17 September, 2009. New electronic data sheets were developed and new methodology was incorporated to estimate confidence in the numbers observed. The estimates now include an indication of the likely range of the numbers observed, as opposed to a single number observed estimate. An estimate of 552,000 kokanee spawners in the index systems (representative streams) were observed. The number of kokanee observed is conservatively 40% greater than observed in the previous 2 years, indicating a continued increase in population size. Kokanee were sampled for sex and length at 3 of the index streams and the intake towers at the WAC Bennett Dam. Mean kokanee fork length was 210 mm, down from the 270 mm observed in mid-1990 surveys. As expected, the size of the kokanee appear to be smaller than previous studies (mid-1990's) due to increasing kokanee population size. Results of these counts were provided to First Nations communities and local residents as well as the Provincial Fisheries Agency. This project meets the Program Strategic Objective to evaluate the status of fish and their habitat and to evaluate enhancement projects.

GENETIC ANALYSIS OF KOKANEE (# 09-11)

Project Objective: To determine the genetic makeup of the kokanee population of the watershed. Particularly, to differentiate the native stocks, (determine their origins and distribution) from the introduced populations from Columbia River hatchery stocks.



Kokanee spawners, male (top) and female (bottom), from Germansen River.

2009/10 (Year 4 of 4): Portage and Pacific Lakes were netted but no kokanee were captured. It is suspected that kokanee may no longer exist in these lakes. No kokanee were captured from McLeod Lake where numbers were too low at the time of survey to capture an adequate sample size without a large bycatch of other species. From Weissener Lake one possible kokanee was found in the stomach of a lake trout. Staff have contacted the DFO Pacific Biological Station staff to complete the analysis of all kokanee samples.

FISH PROJECTS

GRAVEL HILL CREEK HABITAT ENHANCEMENT (# 09-12)

Project Objective: To increase rainbow trout and kokanee production in gravel hill creek through a public involvement habitat improvement project.

Gravel Hill Creek where it enters the reservoir at the Portage Mountain Yacht Club

2009/10 (Year 2 of 4): In late September, the second year of electrofishing surveys was conducted to provide baseline data on pre-enhancement fish use, so that the benefit of the habitat enhancement could be documented. No age-0 (young of the year) rainbow trout were captured in 2009 likely due to high summer flows from a storm event. Electrofishing surveys will be required for many years to provide adequate baseline data, and document effects of the proposed addition of spawning habitat. This project will raise public awareness of the FWCP-PW with key stake holder groups (Williston Reservoir boaters and anglers at the Portage Mountain Yacht Club) and promote public awareness, appreciation and understanding of Northern aquatic ecosystems. This project will be spread over a number of years because of funding shortages and staff time commitments.

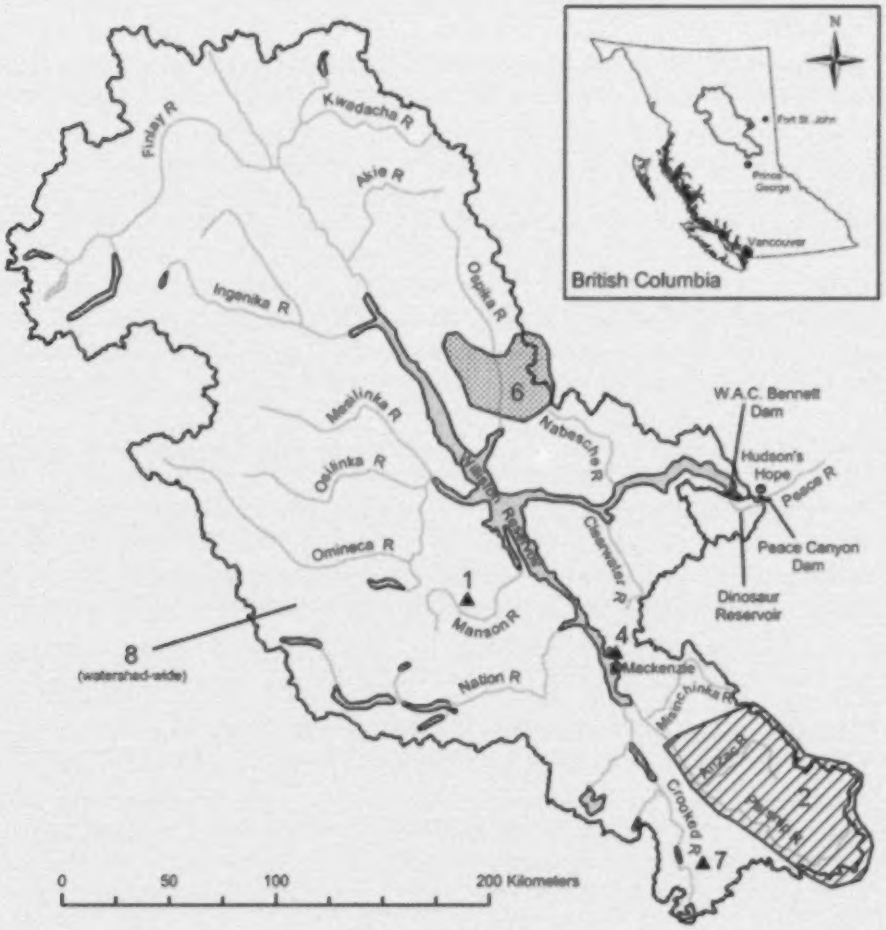
WILLISTON RESERVOIR FISH POPULATIONS (09-13)

Project Objective: To determine the species composition, abundance, and biomass of fish in the pelagic zone of Williston Reservoir.

2009/10 (Year 2 of 3): Funding for this project was provided through a partnership between FWCP-P/W and BC Hydro's WLR department. The 2008 report was completed, and in 2009, side-scan sonar tests were to be completed in Lake Cowichan by D. Sebastian (MoE). The intent was to determine if side-scan sonar techniques can be applied to refine the estimates obtained in Williston Reservoir for the substantial "near-surface" fish populations in the Finlay and Parsnip reaches of the reservoir. Work was not undertaken in 2009 due to health-related staff shortages in MoE's Victoria office. This project meets the Program Strategic Objective to evaluate the status of fish and their habitat.

WILDLIFE PROJECTS—PEACE/WILLISTON REGION

2009/10 WILDLIFE PROJECT LOCATIONS



Map	Task#	Project	Location
1	09-01	Donna Creek Forestry/Biodiversity Project	Parsnip
2	09-02	Parsnip Caribou Recovery Trial (Funded Project—MoE)	Parsnip
4	09-04	Mackenzie Migratory Songbird Monitoring (Funded Project —MNO, CWS)	Parsnip
6	09-06	Ospika Goat/Mineral Lick Project	Finlay
7	09-07	Cottonwood Enhancement Trial	Parsnip
8	09-08	Status of Priority Birds	Watershed

"Funded Projects" are those funded by the FWCP-PW but administered and conducted by the other agencies listed.

WILDLIFE PROJECTS

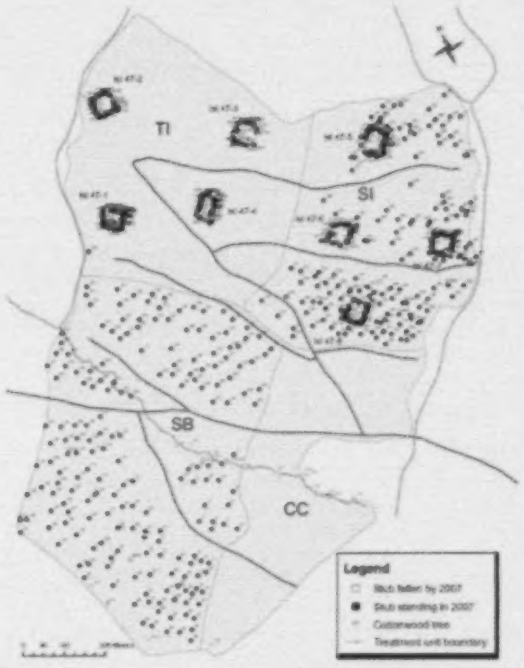
WILDLIFE PROJECT SUMMARIES

PROJECT MAINTENANCE & OPERATIONS (#09-01)

AI DONNA CREEK FORESTRY BIODIVERSITY PROJECT

Project Objective: To develop alternative forest harvesting techniques designed to benefit wildlife that utilise tree cavities (e.g. woodpeckers, red-breasted nuthatch, marten), and to monitor wildlife use of the harvested treatments at successive seral stages (i.e. approx. every 10 years) over the next 60 to 100 years. Plans for 2009/10 included finalization of site maps and the Stub and Island assessment report.

2009/10 (Year 17 of long-term project): This project was initiated in 1991 and 1992 with the harvesting of 3 treatment cutblocks that retained 3-metre high stubs and ¼-hectare "tree islands" in various combinations in the 4 quadrants of each block. Old-growth forest and conventional clearcut areas were identified as controls to compare to these treatment areas. Phase I (early-seral stage) monitoring occurred in 1995 and 1996, and Phase II (shrub-seral stage) occurred in 2006 and 2007; monitoring included intensive bird surveys, and stub retention and decay assessments. The study area was revisited in 2008 to address inconsistencies in some stub data collected the previous year. In 2009/10, new shapefiles were created and revised site maps for the study area were completed. The final draft of the "Status of Retained Stubs and Tree Islands" report was completed, reviewed by the WTC, and the final report was posted on the program website.



Map showing locations of tree islands and stubs in one of the treatment blocks.

Over 95% of the stubs were still standing 15 years after treatment.

WILDLIFE PROJECTS

B) PUBLICATIONS

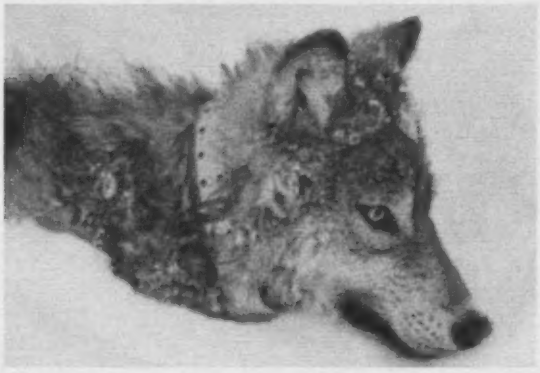
Project Objective: To publish research findings from wildlife projects in scientific journals, thereby promoting the high-quality work conducted by the FWCP-P/W and informing decision-makers involved in natural resource management and the scientific community at large. The focus in 09/10 was the publication of papers based on the Fisher Habitat Use Project.

Factors Affecting Landscape Occupancy by Fishers in North-Central British Columbia

2009/10 (Ongoing): A manuscript, "Factors affecting landscape occupancy by fishers", submitted to the Journal of Wildlife Management in November 2008 was accepted for publication in November 2009 and later published in March 2010. A collaborative manuscript on fisher home ranges and spatial organization (based on our fisher study and a consultant's MSc thesis in the Cariboo Region) was submitted to the Canadian Field-Naturalist in January 2009. The manuscript was accepted in January 2010 and will be published in fiscal10/11.

PARSNIP CARIBOU RECOVERY TRIAL (FUNDED PROJECT) (#09-02)

Project Objective: To assist with the recovery of threatened caribou populations in the Southern Mountains National Ecological Area by evaluating the feasibility of increasing the Parsnip Caribou Herd population by reducing moose numbers in the area (using increased hunter harvest) which should result in fewer wolves and less predation on caribou.



It is thought that the decline in many woodland caribou populations in BC can be attributed to the increase in moose throughout their range, which consequently supports a larger wolf population. Caribou are more vulnerable to wolf predation since they are smaller than moose.

2009/10 (Yr 4 of 4): This project was initiated by MoE in 05/06, but taken on as a FWCP-PW project in 06/07 ("Year 1") with funding provided almost entirely by the FWCP-PW. Radio-collared moose (19), caribou (24) and wolves (11) were monitored throughout the 4th and final year of the project by fixed-wing aircraft, and population surveys were conducted. Remote radio-telemetry stations were re-established and cameras were placed on 2 caribou. Wolf scat and prey remains were collected from wolf den sites and kill sites identified using clusters of GPS locations. The survival rate of adult cow moose in 2009/10 continued to be high (only 1 of 19 collared animals died), but overall moose density continued to decline down to approximately 50% of the 2005 population estimate. This decline coincides with the doubling in the number of LEH hunting permits issued beginning in 2006, and primarily affected the adult male portion of the population based on a decline in the sex ratio from 112 bulls:100 cows in 1998 to 44:100 in 2009, and the high survival of radio-collared cow moose. The mortality rate of adult female collared caribou in 2009/10 was high (5 of 24 died) with at least 3 killed by wolves. The calf:cow ratio and % calves were both lower this year (18:100 and 14%) than in 2007 (23:100 and 15%) and 2008 (45:100 and 22%). The Parsnip caribou population appears to be stable, while the Hart South caribou appears to have declined since the study began. There were an estimated 38–50 wolves in 6 packs within the study area; wolves appeared to kill predominantly moose at low and mid-elevations. Final conclusions of the study will be presented through a Final 4-Year Project Report "Promotion of Mountain Caribou Recovery Through Alternate Species Management" and a Masters thesis to be completed in 10/11 by MoE and a UNBC MSc student respectively.

GRIZZLY BEAR SCOPING STUDY (#09-03)

Project Objective: To clarify and determine the best aspects of 2 proposed grizzly bear projects, one from the West Moberly First Nation and one from MoE, and combine these project activities into one proposal for submission to the SC in the fall budget process.

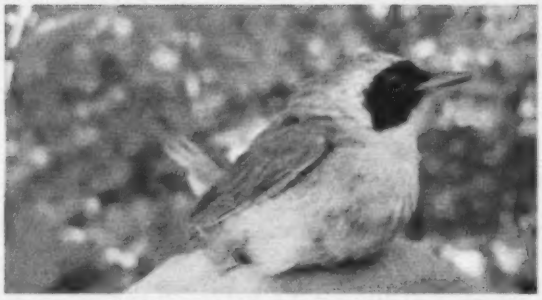
2009/10 (Year 2 of 1): The "sub-committee" (PW wildlife staff, 2 WTC members, and 3? First Nations' representatives [[West Moberly, Treaty 8 and Tsay Keh Dene]] met in June and August to discuss the development of a unified proposal with clear rationale, objectives, and measurables. No advancements were made following the August meeting.

MACKENZIE MIGRATORY BIRD MONITORING (FUNDED PROJECT) (#09-04)

(This project is administered and delivered by the MNO.)

Project Objective: To determine the population status and trends of neotropical migratory songbird populations in the northern Rocky Mountain Trench, and to identify those species that may be at risk from habitat loss and degradation. This is a long-term initiative of the Canadian Wildlife Service (and conducted by the Mackenzie Nature Observatory) to monitor trends of songbird populations throughout North America, to which the FWCP-PW contributes annual funding support.

WILDLIFE PROJECTS



Common Yellowthroat

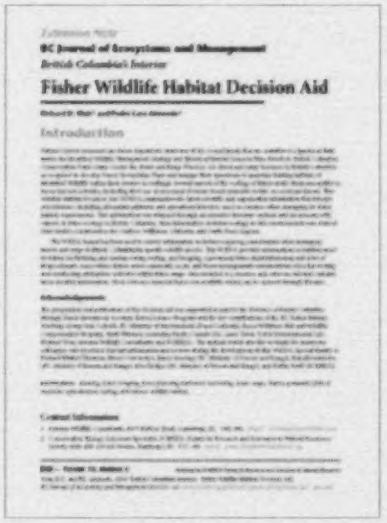
American Redstart

2009/10 (Yr 15 of 18): The mist-nets and banding station at Mugaha Marsh were re-established in July and one full-time and 3 part-time banders were hired for the fall migration season. Volunteers from the MNO, other organizations, and the general public, provided assistance on a full-time basis. In addition to capturing and banding birds, volunteers conducted bird surveys, entered and verified data, prepared an annual report, raised funding, hired and coordinated master banders and volunteers, and maintained the banding lab, trailer, boardwalks, nets, and net-lanes. Between 18 July and 23 September, 2,200 birds of 58 different species were banded at the station during the "standard" banding (the first 6 hours after sunrise). This was the lowest number of birds banded since banding began in 1997. The lower numbers may have been related to the scarcity of storm fronts (which often forces migrating birds to the ground), the late spring (which may have shortened the breeding season), or other local factors. The most commonly banded species in 2009 were the Ruby-crowned Kinglet (365), American Redstart (186), Orange-Crowned Warbler (163), Common Yellowthroat (151), Northern Waterthrush (119) and Swainson's Thrush (119). No new bird species were captured this year. The Ruby-crowned Kinglet, American Redstart and Northern Waterthrush have been the top 3 species banded at Mugaha Marsh since 1995.

FISHER MANAGEMENT GUIDEBOOK (#09-05)

Project Objective: To produce extension products (e.g., a "best management practices" handbook) that will assist forest practitioners (managers to machine operators) in identifying, maintaining, and creating fisher habitat in British Columbia.

2009/10 (Year 2 of 3): Meetings to discuss the initiative were held between the partners: FWCP-PW, MoE, fisher consultants, and FORREX. Funding proposals to support the initiative were prepared and submitted to outside agencies; HCTF funding was received. An extension product ("Fisher Wildlife Habitat Decision Aid") was published in the BC Journal of Ecosystems and Management to convey information on factors requiring consideration when managing forests for fishers. A poster on the initiative was prepared and presented at the 5th International Martes Symposium in Seattle.



Extension Note

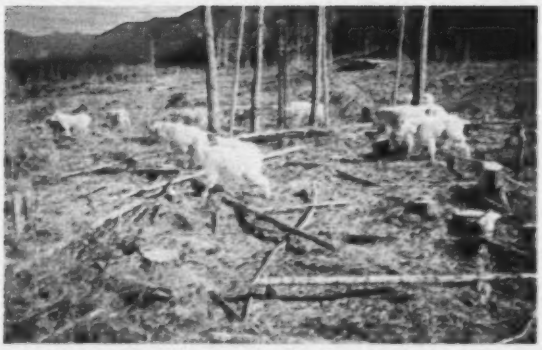
BC Journal of Ecosystems and Management

British Columbia's Interior

Fisher Wildlife Habitat Decision Aid

Introduction

WILDLIFE PROJECTS



Mountain goats crossing the clear-cut treatment area that had occurred along the main access trail to Lick 28, the year after the treatment occurred.

Tree-planting activities were conducted in the treatment area after the study, to facilitate forest regeneration.

OSPIKA GOAT MINERAL LICK STUDY (#09-06)

Project Objective: To determine the impacts of 2 different forest harvesting options on mountain goat behaviour related to use of low-elevation mineral licks and trails. The first treatment, which occurred after the first year of monitoring, involved retention of a forested buffer along the goats' main access trail to one of the mineral licks when the area was logged. The second treatment occurred after the 4th year of monitoring and involved the removal of the forested buffer. Plans for the final year of the study were to complete tree-planting in the area harvested for the second project treatment to aid it's return to a productive forest, and to complete the final 6- year study report.

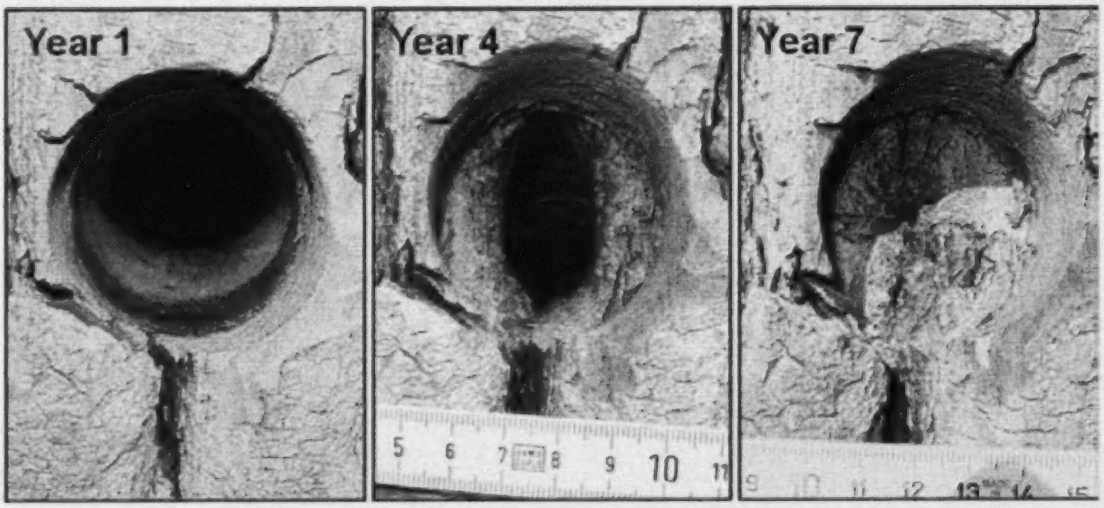
2009/10 (Yr 8 of 8): Tree planters were contracted to plant the treatment area adjacent to the main lick-access trail; work was completed in July 2009. Two contractors and a statistician were hired to help complete specific analyses and written components of the final report. The final 6-year project report was completed and submitted to a WTC member and external reviewers. Reviewers comments will be addressed and the report posted on the program website in 2010.

COTTONWOOD TREE ENHANCEMENT TRIAL (#09-07)

Project Objective: To determine if an access route (drilled hole), created to the core of mature cottonwood trees, will hasten the establishment of heartrot and result in the creation of internal chambers that are useable by secondary cavity-using wildlife. Treated and additional un-treated trees will be monitored to determine stem retention rates. Plans for 2009/10 included the re-assessment of drilled holes for decay status and wildlife use and assessment of stem retention rates 7 years after initial treatment.

2009/10 (Year 9 of 9): In the fall of 2009, 82 tree holes created in 2002 were re-assessed for the 3rd time; assessments were also conducted in Year 1 (2003) and Year 4 (2006) post-treatment. An individual from the McLeod Lake Indian Band was hired to assist with field assessments and enter data. A report on the project's findings was initiated. After 7 years, 67% of the hole openings were closed due to the trees' cambium growth, and none of the holes that could be assessed had any notable decay present. Only 6% of the trees had broken off or fallen over.

WILDLIFE PROJECTS



Progression of cambium in-growth at cottonwood tree #67, 1 to 7 years after initial treatment

STATUS OF PRIORITY BIRDS (#09-08)

Project Objective: To determine the status of 6 bird species at risk within the watersheds (common nighthawk, olive-side flycatcher, rusty blackbird, American bittern, great blue heron, and sandhill crane), and to develop action plans and/or enhancements for the species.

2009/10 (Year 1 of 1): Available information was to be reviewed and status reports initiated, but the project was cancelled due to a higher emphasis on completion of several large project reports this year, and until the new FWCP Basin Plan and subsequent Action Plans are completed.

UNGULATE MINERAL LICK HANDBOOK (#09-09)

Project Objective: To develop a mineral lick classification system (in conjunction with UNBC researchers) for resource planners and managers including Best Management Practices (BMP's) that meet or exceed current government guidelines to conserve mineral lick integrity for ungulates. The ultimate goal is to produce a Handbook providing a sound ecological basis for the identification and management of mineral licks and surrounding areas.

2009/10 (Year 1 of 3): The project was unfortunately cancelled since as UNBC did not receive their primary HCTF funding.

WILDLIFE PROJECTS

PEACE STONE'S SHEEP STUDY

Project Objective: To define the winter tick infestation in Stone's sheep wintering at low elevation on 20 Mile Point, north side of the Peace Arm, including determination of the cause of the problem, and the extent to which it affects herd health and productivity, to determine differences in lamb survival rates and mortality causes between low and high elevation-wintering subpopulations of Stone's sheep along the Peace Arm, to identify rates and causes of mortality in adult ewes and rams, and to address mortality issues and/or develop management prescriptions based on study findings.

2009/10: A major report on the 6-year Peace Sheep study was completed by staff and an external contractor in March, and submitted to external sheep biologists and a WTC member for technical/ scientific review. Reviewers comments are expected back by summer 2010. Edits will be addressed and the final report posted on the FWCP-PW website in fall 2010.

MCLEOD GRIZZLY BEAR BEHAVIOUR STUDY

Project Objective: To classify the behaviour of individual grizzly bears (and by extension, the behaviour by age, sex, and reproductive status) into bears that become a threat to humans after closure of a landfill and bears that do not, and to assist with improving the decisions made by the Conservation Officer Service (COS) of when and which bears to remove from landfill sites, and which bears to ignore and let live.

2009/10: A major report on the McLeod Grizzly study was completed by staff and an external contractor by early March, and submitted to external bear biologists and a WTC member for technical/scientific review. Reviewers comments are expected back by summer 2010. Edits will be addressed and the final report posted on the FWCP-P/W website in fall 2010.

SPECIES INVENTORY DATABASE (SPI)

Project Objective: To enter all wildlife inventory data collected by FWCP-PW since the program's inception in 1988 into MoE's Species Inventory Database (SPI) (a central storage system for all wildlife inventory information in the province).

2009/10: Wildlife program staff assembled all pertinent electronic and paper data files and reports for each wildlife inventory project, in preparation for entry into the SPI system in 2010/11.

2009/10 FINANCIAL SUMMARIES

ADMINISTRATION, PLANNING AND COMMUNITY CONSULTATION

The total 2009/10 budget for the administrative, planning and community consultation components of the FWCP-PW was $373,498 (Table 1). Annual expenditures amounted to $266,620, leaving $106,878 available to carry-over into the 2010/11 fiscal.

The 2009/10 annual budget for the FWCP-PW manager position was $107,500. Expenditures amounted to only $76,533 due to a 4-month vacancy in the position (October 2009 – January 2010). Manager's salary costs were apportioned over the 5 categories of Admin, Planning, Community Consultation, Fish Projects, and Wildlife Projects to accurately reflect the time spent on these activities. (Staff biologists wages were similarly apportioned, but accounted for within the respective Fish and Wildlife Budget sections below.)

Hard costs budgeted for Administration in 2009/10 were $140,998 to cover office and warehouse lease, phones, computers, and office support ($64,498), and the Peace chapter's portion of the FWCP Manager's wages and operating costs ($76,500). Annual expenditures amounted to $158,528 due to additional FWCP operating costs.

Costs budgeted for Program Planning activities in 2009/10 were $75,000, for Steering Committee meetings, First Nations engagement and consultation activities, strategic planning workshops, and other related meetings/workshops to define the future of the program. Annual expenditures amounted to $24,182.

The Community Consultation and Information (CCI) budget in 2009/10 was $50,000. Annual expenditures amounted to only $7,337 primarily due to the deferment of several activities (Natureline, program signage, website updating, advertising, promotional items) pending completion of the new FWCP logo, website, and community consultation program, and from the recovery of $7,700 that was charged to the CCI accounts in 2008/09 in error.

2009/10 FINANCIAL SUMMARIES

TABLE 1. ADMINISTRATIVE, PLANNING, AND COMMUNITY CONSULTATION EXPENDITURES FOR 2009/10.

	BUDGETED	EXPENDED	BALANCE
ADMINISTRATION			
MoE Administration Charges (office lease etc.)	$ 64,498	$ 68,164	$ (3,666)
FWCP Manager (MacDonald)	76,500	90,364	(13,864)
FWCP-PW Manager (Imus/Coyle)	37,625	26,786	10,839
Subtotal	$ *178,623*	$ *185,314*	$ *(6,691)*
PLANNING			
SC Planning (meetings, FNs, strategic workshops)	75,000	24,182	50,818
FWCP-PW Manager (Imus/Coyle)	43,000	30,613	12,387
Subtotal	$ *118,000*	$ *54,795*	$ *63,205*
COMMUNITY CONSULTATION			
Media/Natureline/website	3,750	538	3,212
Signage	10,000	391	9,609
Advertising & report description updates	3,500	151	3,349
Sponsorship, donations, promotional items	6,250	(2,877)	9,127
Fish educational programs	18,000	9,175	8,825
First Nations outreach & public consultation	8,500	–	8,500
FWCP-PW Manager (Imus/Coyle)	5,375	3,827	1,548
Subtotal	$ *55,375*	*$11,204*	$ *44,171*
FISH PROJECTS			
FWCP-PW Manager (Imus/Coyle)	10,750	7,653	3,097
Subtotal	$ *10,750*	$ *7,653*	$ *3,097*
WILDLIFE PROJECTS			
FWCP-PW Manager (Imus/Coyle)	10,750	7,653	3,097
Subtotal	$ *10,750*	$ *7,653*	$ *3,097*
TOTAL	**$ 373,498**	**$ 266,620**	**$ 106,878**

[1] *"Amount Expended" includes operational costs, BCH Community Relations staff wages, and BCH consultant costs.*

2009/10 FINANCIAL SUMMARIES

FISH PROJECTS

The basic annual Fish Program budget in 2009/10 was $722,393, which together with an additional $171,799 in carry-over funds from 2008/09 resulted in a total available budget of $894,192. Of this, $204,700 was deducted to cover costs associated with FWCP central and PW managers, SC planning activities, and CCI activities, leaving $689,492 available for Fish Program delivery in 2009/10. Fish program expenditures in 2009/10 amounted to $386,533 of which $167,289 (55%) was spent on Projects (Table 2). Funds remaining from the Fish program ($302,959) were carried over for the 2010/11 fiscal. The proportion of staff time spent on Administration was 29%, PST 10%), CCI 9%, and Projects 52%.

TABLE 2. DETAILED FISH PROGRAM BUDGET EXPENDITURES FOR THE 2009/10 FISCAL.

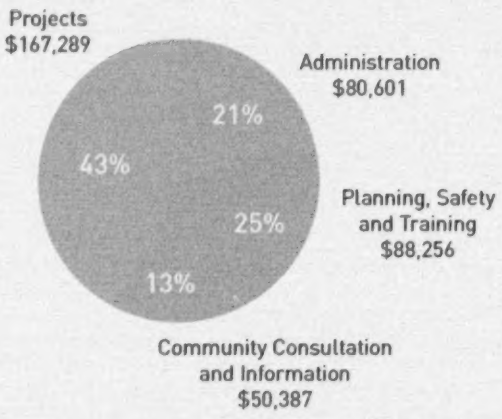
Task #	PROJECT NAME	PROJECT COSTS[1]	CATEGORY TOTALS	% Budgeted	% Expended
	ADMINISTRATION[2]		$ 80,601	6%	21%
	PLANNING, SAFETY & TRAINING[3]		$ 88,256	29%	23%
	COMMUNITY CONSULTATION & INFORMATION[4]		$ 50,387	8%	13%
	PROJECTS		$167,289	55%	43%
1	Project Operations and Maintenance	29,314			
2	Dinosaur Reservoir Habitat Improvements	214			
3	Dinosaur Reservoir Fish Assessment Design	2,698			
4	Brassy Minnow	25,653			
5	Peace Reach Graying Genetic Samples	0			
6	Parsnip Arctic Graying Population Index	0			
7	Synopsis of the FWCP-PW Arctic Graying Program	34,065			
8	Arctic Graying Management and Recovery Plan	122			
9	Bull Trout Redd Count Indexing	25,231			
10	Kokanee Spawner Index Stream Survey	23,442			
11	Genetic Analysis of Kokanee Population Structure	20,144			
12	Gravel Hill Creek Habitat Enhancement Potential	6,253			
13	Williston Reservoir Fish Populations	153			
			$386,533	**100%**	**100%**

[1] Project Costs: includes operational costs, staff wages and travel, equipment & supplies, and vehicle costs.

[2] Administration: includes staff wages, minor office supplies, and vehicle costs. (Hard costs for office lease, computers, phones etc. accounting for under Administration account.)

[3] Planning, Safety & Training: includes staff wages and travel, Technical Committee travel, training courses, conferences, and vehicle costs. (Hard costs for SC meetings, strategic planning meetings, First Nations meetings, and other planning initiatives accounted for under Planning account.)

[4] Community Consultation & Information: includes staff wages & travel, vehicle costs, and hard costs for Education Programs. (Hard costs for CCI activities accounted for under Community Consultation account.)



2009/10 FINANCIAL SUMMARIES

WILDLIFE PROJECTS

The annual Wildlife Program budget allocation for 2009/10 was $591,048 which together with $108,009 in carry-over funds from 2008/09 resulted in a total available budget of $699,057. Of this, $168,798 was deducted to cover costs associated with FWCP central and PW managers, SC planning activities, and CCI activities, leaving $530,259 available for Wildlife Program delivery in 2009/10. Wildlife program expenditures in 2009/10 amounted to $426,944 of which $353,408 (83%) was spent on wildlife research, enhancement, and evaluation projects (Table 3). Funds remaining from the Wildlife budget ($103,315) were carried over for the 2010/11 fiscal. The proportion of staff time spent on Administration was 16%, PST 15%, CCI 7%, and Projects 62%.

TABLE 3. DETAILED WILDLIFE PROGRAM BUDGET EXPENDITURES FOR THE 2009/10 FISCAL.

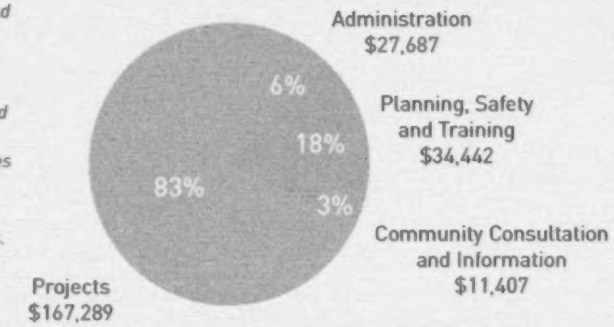
Task #	PROJECT NAME	PROJECT COSTS[1]	CATEGORY TOTALS	% Budgeted	% Expended
	ADMINISTRATION[2]		$ 27,687	6%	6%
	PLANNING, SAFETY & TRAINING[3]		$ 34,442	18%	8%
	COMMUNITY CONSULTATION & INFORMATION[4]		$ 11,407	3%	3%
	PROJECTS		$353,408	73%	83%
1a	Project Maintenance—Donna Creek	17,991			
1b	Project Maintenance—Publications	880			
2	Parsnip Caribou Recovery Trial	166,371			
3	Grizzly Bear Scoping Project	1,362			
4	Mackenzie Migratory Bird Monitoring	7,848			
5	Fisher Management Guidebook	11,007			
6	Ospika Goat/Mineral Lick Project	66,307			
7	Cottonwood Enhancement Trial	9,954			
8	Status of Priority Birds	0			
9	Ungulate Mineral Lick Handbook	0			
n/a	Peace Stone's Sheep Project	15,466			
n/a	McLeod Grizzly Behaviour Project	53,380			
n/a	Species Inventory Database	2,842			
			$426,944	**100%**	**100%**

[1] Project Costs: includes operationaly costs, staff wages and travel, equipment & supplies, and vehicle costs.

[2] Administration: includes staff wages, minor office supplies, and vehicle costs. (Hard costs for office lease, computers, phones etc. accounting for under Administration account.)

[3] Planning, Safety & Training: includes staff wages and travel, Technical Committee travel, training courses, conferences, and vehicle costs. (Hard costs for SC meetings, strategic planning meetings, First Nations meetings, and other planning initiatives accounted for under Planning account.)

[4] [2]Community Consultation & Information: includes staff wages & travel, vehicle costs, and hard costs for Education Programs. (Hard costs for CCI activities accounted for under Community Consultation account.)



2009/10 FINANCIAL SUMMARIES

FWCP-PW 2009/10 PROGRAM FINANCIAL SUMMARY

The total 2009/10 budget for the FWCP-PW, including carry-over from the previous fiscal year, was $1,593,249 (Table 4). Expenditures for the 3 "programs" of the FWCP-PW (reported on in the preceding pages) amounted to $1,080,097, leaving $513,152 to carry-over to the 2010/11 fiscal.

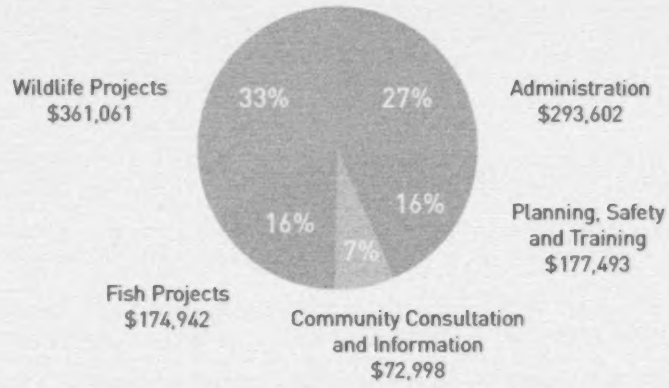
TABLE 4. SUMMARY OF AMOUNTS BUDGETED AND EXPENDED IN EACH OF THE 3 "PROGRAMS" OF THE FWCP-PW, 2009/10.

PROGRAM	AMOUNT BUDGETED	AMOUNT EXPENDED	CARRY-OVER TO 10/11
Base Cost	$ 373,498	$ 266,620	$ 106,878
Fish Program	689,492	386,533	302,959
Wildlife Program	530,259	426,944	103,315
TOTAL	**$1,593,249**	**$1,080,097**	**$ 513,152**

Re-allocating those portions of the Fish Program and Wildlife Program budgets that were spent on Administration, Planning, and Community Consultation activities to those respective categories, demonstrates that 50% ($536,003) of the 2009/10 expenditures were spent on Fish and Wildlife enhancement and research projects (Table 5).

TABLE 4. SUMMARY OF AMOUNTS BUDGETED AND EXPENDED IN EACH OF THE 3 "PROGRAMS" OF THE FWCP-PW, 2009/10.

CATEGORY	BASE COSTS	FISH PROGRAM	WILDLIFE PROGRAM	TOTAL
Administration	$ 185,314	$ 80,601	$ 27,687	$ 293,602
Program Planning	54,795	88,256	34,442	177,493
Community Consultation and Information	11,204	50,387	11,407	72,998
Fish Projects	7,653	167,289	0	174,942
Wildlife Projects	7,653	0	353,408	361,061
TOTAL	**$ 226,620**	**$ 386,533**	**$ 426,944**	**$ 1080,097**



APPENDICES

ACRONYMS

FWCP-PW

BCH	BC Hydro	PC	Policy Committee
CCI	Community Consultation and Information	PST	Planning, Safety and Training
ESIM	Environmental and Social Issues Manager	PWAC	Peace/Williston Advisory Committee
FTC	Fish Technical Committee	SC	Steering Committee
FTR	Full-Time Regular	SWP	Safe Work Procedures
FWCP	Fish and Wildlife Compensation Program	TC	Technical Committee
FWCP-PW	Fish and Wildlife Compensation Program—Peace/Williston chapter	WLR	Water License Requirements
MoE	Ministry of Environment	WTC	Wildlife Technical Committee
NRS	Natural Resource Specialist	WUP	Water Use Planning

STAKEHOLDERS AND PROJECT COLLABORATORS

ABIT	Abitibi Consolidated
BCTA	BC Trappers Association
BCWF	BC Wildlife Federation
CANFOR	Canadian Forest Products Ltd.
CWS	Canadian Wildlife Service
DFO	Department of Fisheries and Oceans
FFS	Freshwater Fisheries Society of BC
FRBC	Forest Renewal BC
FWCP-CB	Fish and Wildlife Compensation Program-Columbia Basin
GOABC	Guide-Outfitters Association of BC
HCTF	Habitat Conservation Trust Fund
HHRG	Hudson's Hope Rod and Gun Club
LCHH	Lions Club of Hudson's Hope
MFGA	Mackenzie Fish and Game Association
MNO	Mackenzie Nature Observatory
MoF	Ministry of Forests
TKD	Tsay Keh Dene Band
WII	Wildlife Infometrics Inc.
WSSBC	Wild Sheep Society of BC
WSC	Water Survey of Canada
UBC	University of British Columbia
UNBC	University of Northern British Columbia

COMMITTEES

POLICY COMMITTEE:

Edie Thome (BC Hydro)
Rebecca Reid (Fisheries and Oceans Canada)
Al Martin (Ministry of Environment) (outgoing)
Ralph Archibald (Ministry of Environment) (incoming)

STEERING COMMITTEE:

Don Cadden (MoE) – Chair (outgoing)
Kevin Conlin (BC Hydro)
Debbie Beattie (Public)
Dan Bouillon (BC Hydro)
Ted Down (Ministry of Environment)
Mike Nash (Public)
Grand Chief Gordon Pierre (Tsay Keh Dene)
Ted Zimmerman (Ministry of Environment) (incoming)

PROGRAM MANAGERS:

Andrew MacDonald – Fish and Wildlife Compensation Program (Victoria)
Marc Imus – Fish and Wildlife Compensation Program – Peace/Williston (PG) (outgoing)
Bob Coyle – Fish and Wildlife Compensation Program – Peace/Williston (PG) (incoming)

FISH TECHNICAL COMMITTEE:

Ray Pillipow (MoE, PG) – Chair
Brendan Anderson (MoE, FSJ) (Feb – Mar)
Pete Scales (BCH, HH) (Apr – Sep)
David Wilson (BCH, Burnaby) (Apr - Sep)
Brent Mossop (BCH, Burnaby) (Oct - Mar)

WILDLIFE TECHNICAL COMMITTEE:

Conrad Thiessen (MoE, FSJ) - Chair
Doug Heard (MoE, PG)
Ed Hill (BCH, Burnaby)
Pete Scales (BCH, HH) (Apr – Sep)
Kim Hawkins (BCH, HH) (Oct – Mar)

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